

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 1

Item ID: D350-636-011

Accept

N900040100

Setup Start *NS1*

Revision ID:

Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Stop *NS2*

Start Date: 12/20/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: ML5 Date: 13-12-20 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D2750-041	G

100

DOCUMENT CONTROL

0.00

100

DC

Memo

0.00

Document Control

record fwd angle: 89.5°

Photocopy blue file and type labels per PPP D350-636-011 CHG 007

0.3

9.3

14-2-25

DP 14-1-23

MLV

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 2

Item ID: D350-636-011

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Stop

NS2

Start Date: 12/20/13 Start Qty: 1.00

1

Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							

110

Skidtubes

0.00

Skidtubes

Skidtubes

Memo

1- Pick D2600-3 Bent

DP 14-1-23

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750

DC 14/01/23

3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.

DP 14-1-23

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting

DC 14/01/23

5- Drill only two fwd step holes using DT9616. Ensure proper positioning.

6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

DP 14-1-23

7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***

8- Open up holes for Detail B to 0.375" (4 holes per side) and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750. Open up holes for ground handling and detail C to 0.500" (8 holes per side)

DC 14/01/23

9- Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".

10- Open up holes of Detail A to 0.297" (total of 2 holes per side)

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 3

Item ID: D350-636-011 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.
 Start Date: 12/20/13 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 1/03/14 Req'd Qty: 1.00 *1* Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
 from bending as per QSI 004
 A/R Aluminum Rod batch: m127069 BE 14/01/23
 12-Grind welds flush as per Dwg D2750

120	QC10- Inspect visual per QSI004- ground welds	0.00							
120									
QC	Memo	0.00							
Quality Control									DAS 9 9-89

130	QC5- Inspect part completeness to step on W/O	0.00							
130									
QC	Memo	0.00							
Quality Control									DAS 9 9-89

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 4

Item ID: D350-636-011

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							
140									
HandFinish	Memo	0.00							
Hand Finishing									
150	QC7-Inspect Chemical Conversion Coat	0.00							
150									
QC	Memo	0.00							
Quality Control									

1 7614-1-27

DD 14-1-27

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 5

Item ID: D350-636-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.
 Start Date: 12/20/13 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 1/03/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Skidtubes	0.00							
160									
Skidtubes	Memo	0.00							
Skidtubes	1-Open up holes of Detail C and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.								
	2-Open up holes of Detail B to 0.750" (total of 4 holes per side) as per dwg D2750.								
	3- Open float hole to 0.500" (4 per side)								
	4-Chamfer holes of Detail B, C, ground handling and float holes per dwg D2750 (welding instructions on sheet 8)								
	5-Deburr and blow out all chips from inside of tube								
	6- Prepare tube for welding, remove alodine as required.								
	7-Bond web D2739 in place as per QSI 015 A/R Sikaflex-291 batch: <u>12997</u> exp. date: <u>14-8-16</u>								
	8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 8) A/R Aluminum Rod batch: <u>M127069</u>								
	9- At section AJ-AJ drill out x-bolt spacer to 0.404"								
	10-Grind welds flush as per Dwg D2750								

14-1-27 DGL

14-1-27 DGL

14-1-29

14-1-29

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 6

Item ID: D350-636-011 **Accept** ***N900040100*** **Setup Start *NS1***
Revision ID: **Stop *NS2***
Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.
Start Date: 12/20/13 **Start Qty:** 1.00 ***1*** **Cust Item ID:**
Required Date: 1/03/14 **Req'd Qty:** 1.00 ***1*** **Customer:**
Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run Start *NR1***
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	11-Spot face ground handling holes section (total of 4 places per side) as per dwg D2750		} DGL 14-1-29.						
	12-Deburr holes								
170	QC10- Inspect visual per QSI004- ground welds	0.00							DAS
170									9
QC	Memo	0.00						① 14-01-29	9-89
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00							DAS
180									9
QC	Memo	0.00						① 14-01-29	9-89
Quality Control	***VERIFY C'BOARD IS GOOD***								

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 7

Item ID: D350-636-011 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13 Start Qty: 1.00 *1* Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 1.00 *1* Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	Pressure Wash per QSI005 4.3	0.00				1	7/6	14-1-27	
190	HandFinish	0.00							
Hand Finishing	Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200		0.00							
200	SprayPaint	0.00						14-2-1904A8	
Spray Painting	Memo 1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: 126 543 2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: 1128 198								
210	QC14- Inspect Spray Paint	0.00							
210	QC	0.00							
Quality Control	Memo Inspect for foreign object per QSI 024								

SMF
14/2/20

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 8

Item ID: D350-636-011 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.
 Start Date: 12/20/13 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 1/03/14 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	HandFinishing	0.00							
230	HandFinish	0.00							
Hand Finishing	Memo								
	1- Install inserts as per Dwg D2750								
	2-Inspect for Foreign Objects								
	3- Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D2750								
	SIKA FLEX 241								
	BATCH: <u>M127918</u>								
	EXP DATE: <u>14108</u>								
	4- Assemble o'ring to plug as per dwg D3492 and apply o'ring lube								
	A/R 55-o'ring lube batch: <u>M121651</u>								
	5- Coat all exposed fasteners with "LPS Procyon" batch: <u>M122900</u>								
240	QC5- Inspect part completeness to step on W/O	0.00							
240	QC	0.00							
Quality Control	Memo								

DAS
27
9-89
14/12/24

1614 1614 1614 1614

J

Work Order ID 110473

December-20-13 9:07:16 AM

110473

Page 10

Item ID: D350-636-011

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 1/03/14 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

280	QC21- Final Inspection - Work Order Release	0.00							
-----	---	------	--	--	--	--	--	--	--

280

QC

Memo

0.00

Quality Control

MS 14-02-28

H 14-02-27

Picklist Print

December-20-13 9:07:20 AM

Page 1

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:I 02.09.25 Rearranged procedure steps KJ
 IPP Rev:J 06-03-23 As per Rev D JLM
 IPP Rev:K 06-07.13 As per dsi9343 EC
 IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verf:EC
 IPP Rev:M 08-04-22 update steps 4, 13 DD verified by:EC
 IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec
 IPP Rev:O 09-02-06 apply antiseize on AN8C21A bolts as per PAR09-010
 DD verf:EC IPP Rev:P 10.06.22 revise
 seq110 DD verf:EC IPP Rev:Q 10.10.01 as per IIN revH
 DD verf:EC IPP REV:R 13.08.27 PER ECN13-594 DD
 VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3492-1		Manufactured	No			230	Each	195.0000	8	8			
D3492-1									**			11/02/2013	
Plug													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP001				195					
				104844				195					
D3492-3		Manufactured	No			230	Each	277.0000	8	8			
D3492-3									**			14/02/2013	
Plug													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP001				277					
				104853				72					
				107331				105					
				109800				100					
NAS1611-010		Purchased	No			230	Each	45.0000	8	8			
NAS1611-010									**			14/02/2013	
O-RING													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FP001				45		127813			
				m126988				45					

Picklist Print

December-20-13 9:07:20 AM

Page 2

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0863J

Purchased

No

250

Each

991.0000

2

2

NAS1149D0863J

Washer

14-02-24

DAS

6

9 89

Location

Loc Qty

Loc Code

FP001

6

118078

6

ST293

185

125484

185

ST510a

800

125268

600

125635

200

D2744

Manufactured

No

110

Each

52.0000

1

1

D2744

Cap

BR 14/01/25

Location

Loc Qty

Loc Code

LG001

52

100398

28

97543

24

D2600-3-BENT

Manufactured

No

110

Each

5.0000

1

1

D2600-3-BENT

Extrusion Bent

DP 14-1-23

Location

Loc Qty

Loc Code

LG002

5

109789

5

110478

①

Picklist Print

December-20-13 9:07:20 AM

Page 3

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D2743 Manufactured No 160 Each 331.0000 8 8

D2743

Crossbolt Spacer

BE14-01-28

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	331	
106245	9	
107359	68	
107907	122	
<u>109799</u>	132	

D2739 Manufactured No 160 Each 11.0000 1 1

D2739

350 I Beam

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG002 <u>110835</u>	11	
109712	1	
109973	10	

D3490-3 Manufactured No 160 Each 160.0000 4 4

D3490-3

Cross Bolt Spacer

BE14-01-28

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	160	
103883	14	
105603	3	
107913	63	
<u>109933</u>	80	

D3490-1 Manufactured No 160 Each 225.0000 4 4

D3490-1

Cross Bolt Spacer

BE14-01-28

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	225	
107419	57	
<u>109932</u>	168	

December-20-13 9:07:20 AM

Shop Packet Print

Page 3

Picklist Print

December-20-13 9:07:20 AM

Page 4

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-225

Purchased

No

Each

469.0000

38

AI S4-1032-225

Rivnut

Handwritten: 11/07/13

Location

Loc Qty

Loc Code

FG

30

Handwritten: 11128179

Handwritten: x38

M127028

30

ST280

10

M127028

10

st555

429

M127092

429

D3793-3

Manufactured

No

230

Each

11.0000

1

1

D3793-3

Wearplate Aft

Handwritten: 11/02/13

Location

Loc Qty

Loc Code

FP001

11

Handwritten: B110066

Handwritten: x1

104212

11

AN8C35A

Purchased

No

230

Each

75.0000

1

1

AN8C35A

Bolt

Handwritten: 11/02/13

Location

Loc Qty

Loc Code

FG

4

121275

4

FP001

71

m126293

47

Handwritten: x1

m127061

24

D3793-1

Manufactured

No

230

Each

6.0000

1

1

D3793-1

Wearplate Fwd

Handwritten: 11/02/13

Location

Loc Qty

Loc Code

FP002

6

Handwritten: B110121

Handwritten: x1

109205

6

December-20-13 9:07:21 AM

Shop Packet Print

Page 4

Picklist Print

December-20-13 9:07:21 AM

Page 5

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D3488-041

Manufactured No

230

Each

4.0000

1

1

D3488-041

Blade Fitting LH

**

yl 12/20/13

Location

Loc Qty

Loc Code

FP001

4

B106-96

xl

103877

4

D3794-3

Manufactured No

230

Each

17.0000

1

1

D3794-3

Gasket Aft

**

yl 12/20/13

Location

Loc Qty

Loc Code

FP001

17

108413

17

xl

AN6C44A

Purchased No

230

Each

56.0000

4

4

AN6C44A

Bolt

**

yl 12/20/13

Location

Loc Qty

Loc Code

FG

2

103964

2

ST340

50

123900

50

ST341

4

m127300

4

yl

MS21083C8

Purchased No

230

Each

35.0000

1

1

MS21083C8

Nut

**

yl 12/20/13

Location

Loc Qty

Loc Code

ST319

35

m127255

35

yl

December-20-13 9:07:21 AM

Shop Packet Print

Page 5

Picklist Print

December-20-13 9:07:21 AM

Page 6

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D3536-25 Manufactured No

230 Each 20.0000 1 1

D3536-25

Gasket Center

jl 11/02/20

Location

Loc Qty

Loc Code

FG

6

B110652

vl

87053

2

95328

4

FP001

14

109206

14

D3631-1 Manufactured No

230 Each 12.0000 8 8

D3631-1

Washer

jl 11/02/20

Location

Loc Qty

Loc Code

FP001

12

B111546

vl

107324

12

D3791-1 Manufactured No

230 Each 3.0000 1 1

D3791-1

Wearpad

jl 11/02/20

Location

Loc Qty

Loc Code

FP002

3

B109511

vl

106144

3

NAS1149C0332R Purchased No

230 Each 9,547.000 38 38

NAS1149C0332R

WASHER

jl 11/02/20

Location

Loc Qty

Loc Code

GA

1277

M1127831

xld

125654

1277

st510

8270

m126319

2770

m127306

2500

m127410

3000

v24

December-20-13 9:07:21 AM

Shop Packet Print

Page 6

Picklist Print

December-20-13 9:07:21 AM

Page 7

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D2745

Manufactured No

230

Each

129.0000

8

8

D2745

Bushing

HL 12/20/13

Location

Loc Qty

Loc Code

ST017

129

B110526

✓ 8

106847

5

107336

124

AN3C5A

Purchased No

230

Each

164.0000

34

34

AN3C5A

Bolt

HL 12/20/13

Location

Loc Qty

Loc Code

FG

5

B1128057

✓ 34

122800

5

ST350

159

m127290

159

D3537-1

Manufactured No

230

Each

20.0000

3

3

D3537-1

Wearpad

HL 12/20/13

Location

Loc Qty

Loc Code

FG

18

B110821

✓ 3

79833

8

88562

10

FP001

2

108118

2

December-20-13 9:07:21 AM

Shop Packet Print

Page 7

Picklist Print

December-20-13 9:07:21 AM

Page 8

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat..

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

NAS1149C0832R

Purchased

No

230

Each

359.0000

1

1

NAS1149C0832R

Washer

**

11/02/13

Location

Loc Qty

Loc Code

ST292

359

122441

92

m114915

117

m125807

150

XL

AN3C6A

Purchased

No

230

Each

535.0000

4

4

AN3C6A

Bolt

**

11/02/13

Location

Loc Qty

Loc Code

FG

10

122416

10

ST513

525

m125709

525

XL

NAS1611-013

Purchased

No

230

Each

16.0000

8

8

NAS1611-013

O-RING

**

11/02/13

Location

Loc Qty

Loc Code

FP001

16

125445

16

1127813

XL

D3535-25

Manufactured

No

230

Each

13.0000

1

1

D3535-25

Wearplate Center

**

11/02/13

Location

Loc Qty

Loc Code

FG

2

95077

2

B110193

XL

FP002

11

106128

11

December-20-13 9:07:21 AM

Shop Packet Print

Page 8

Picklist Print

December-20-13 9:07:21 AM

Page 9

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D3794-1

Manufactured No

230

Each

13.0000

1

1

D3794-1

Gasket Fwd

HL 11/02/13

Location

Loc Qty

Loc Code

FP001

13

B110316

21

104620

1

108497

5

109207

7

MS21043-6

Purchased No

230

Each

268.0000

4

4

MS21043-6

NUT

HL 11/02/13

Location

Loc Qty

Loc Code

FG

20

103693

20

ST315

248

m127255

248

24

D3493-1

Manufactured No

250

Each

245.0000

2

2

D3493-1

Washer

DAS
28
9-89

14-02-24

Location

Loc Qty

Loc Code

FG

10

97201

10

ST051

235

105613

16

107916

60

109105

159

2x

DAS
31
9-89

DAS
5
1-89

***ONLY INSTALL IF INSTALLING ON APICAL
FLOAT SYSTEM***

December-20-13 9:07:21 AM

Shop Packet Print

Page 9

Picklist Print

December-20-13 9:07:21 AM

Page 10

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased No

250

Each

35.0000

2

2

MS21083C8

Nut

DAS
6
3-89

Location

Loc Qty

Loc Code

ST319

35

m127255

35

127813

DAS
28
9-89

14-02-24

AN8C21A

Purchased No

250

Each

45.0000

2

2

AN8C21A

Bolt

DAS
6
9-89

Location

Loc Qty

Loc Code

ST

2

123966

2

ST505

43

m127061

43

2x

DAS
28
9-89

DAS
31
9-89

NAS1515H3L

Purchased No

230

Each

54.0000

4

4

***NAS1515H3L ***

Washer

Location

Loc Qty

Loc Code

FG

40

102472

40

ST297

14

124542

14

11127831

24

14/02/14

DAS
31
9-89

Picklist Print

December-20-13 9:07:21 AM

Page 11

Work Order ID: 110473

110473

Parent Item: D350-636-011

D350-636-011

Parent Item Name: Skidtube LH Aerazur / Apical Cylindrical Compat.

Start Date: 12/20/13

Required Date: 1/03/14

Start Qty: 1.00

Required Qty: 1.00

D2741

Manufactured No

250

Each

39.0000

1

1

D2741

Blade

DAS
28
9-89

14-02-24

Location

Loc Qty

Loc Code

FG

11

100664

5

85480

1

98323

5

ST466

28

107206

28

1x

DAS
31
9-89

D3532-1

Manufactured No

250

Each

86.0000

2

2

D3532-1

Spacer

DAS
28
9-89

Location

Loc Qty

Loc Code

ST054

86

100519

26

109803

60

2x

DAS
31
9-89

DAS
8
9-89

December-20-13 9:07:21 AM

Shop Packet Print

Page 11

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY, RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1			D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN8C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- WELD PER DART QSI 004
- INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES ($\phi 0.297$) FOR WEARSHOE INSERTS
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

110473 MJS
1512-20

RELEASED
2013-08-13

G	CORRECTED TOLERANCE ON $\phi 0.500$ THRU HOLE: IS $+0.010/-0.000$, WAS $+0.100/-0.000$ (ZN B3-4, B2-5); ADD VIEW TO CONTROL FWD BEND ORIENTATION (ZN D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS; INSIDE OF TUBE NO LONGER SPRAYED WITH LPS-3. REASON: PAR13-276 AND NCR13-2757	MB	13.07.11
F	INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1/3 REPLACES D3535-13/-35 (ZN C8-1); D3794-1/3 REPLACES D3536-13/-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWD/AFT SADDLE REMOVED (8 PL); WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1; REMOVE QTY (38) NAS1515H3L; REMOVE QTY (10) NAS1515H8L; REMOVE D2741, QTY (2) AN960C816; REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157	PH	06.01.05
C	ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO AN8-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN	MM		
DRAWN	B		
CHECKED	9/1/11		
MFG. APPR.	9/1/11		
APPROVED	9/1/11		
DE APPR.	9/1/11		
DATE	13.07.11		

DART AEROSPACE USA, INC.

KENT, WA

DRAWING NO.

D2750

TITLE

350 SKIDTUBE ASSEMBLY

COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.

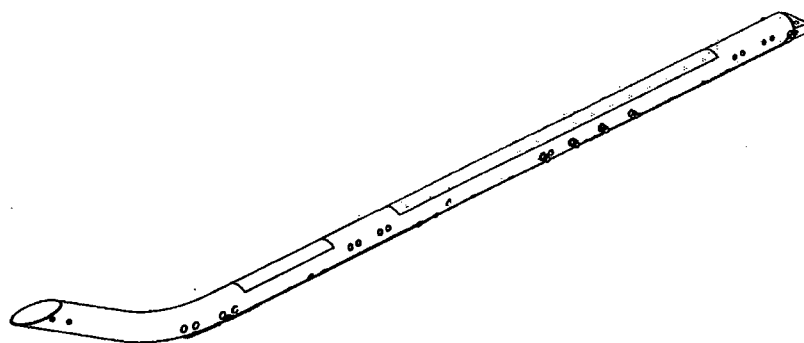
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.

REV. G

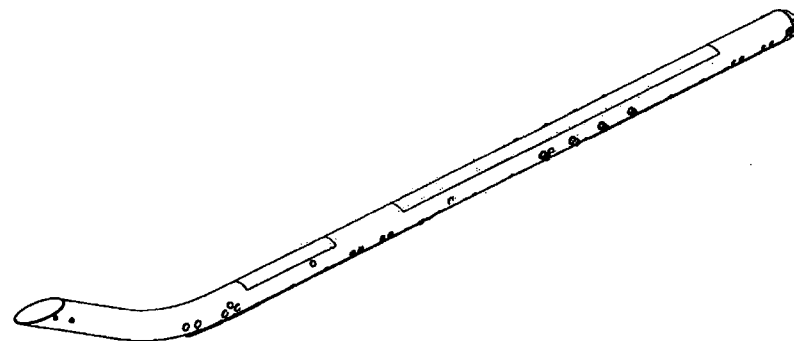
SHEET 1 OF 11

SCALE

NTS



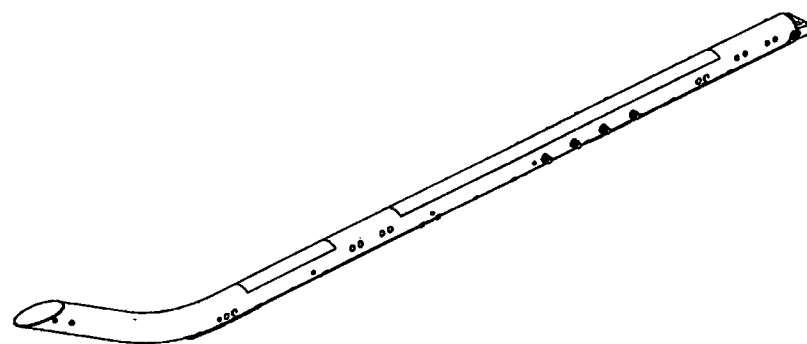
D2750-041 350 SKIDTUBE ASSEMBLY, LH



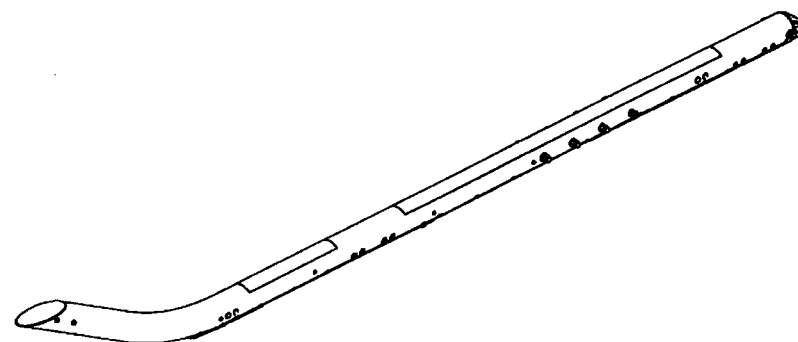
D2750-042 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13
MD

DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN	<i>[Signature]</i>	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. G
MFG. APPR.	<i>[Signature]</i>	D2750	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



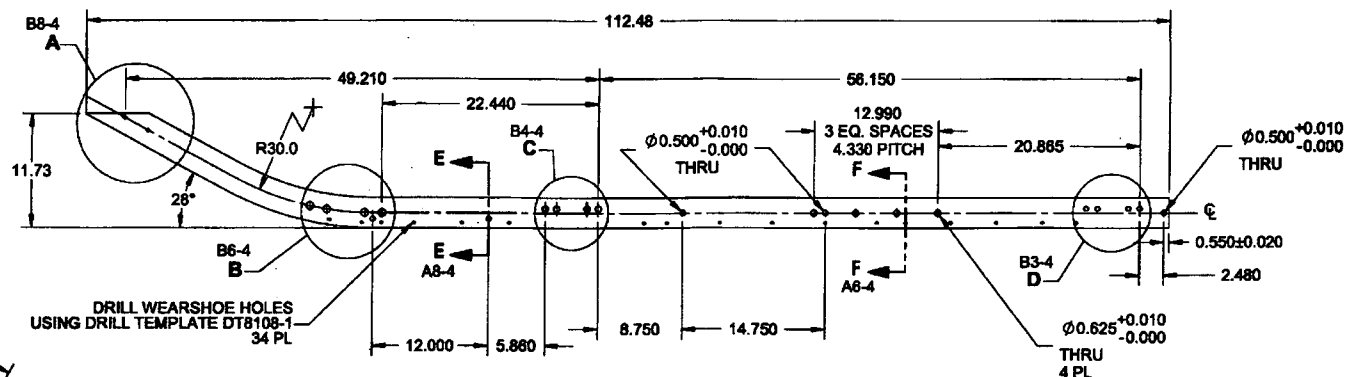
D2750-043 350 SKIDTUBE ASSEMBLY, LH



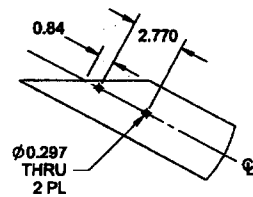
D2750-044 350 SKIDTUBE ASSEMBLY, RH

RELEASED
2013-08-13
nd

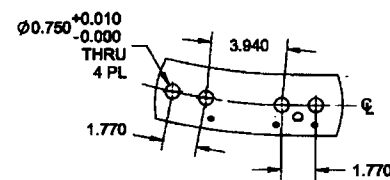
DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN	<i>[Signature]</i>	KENT, WA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. G
MFG. APPR.	<i>[Signature]</i>	D2750	SHEET 3 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	<small>COPYRIGHT © 1998 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE REPRODUCED FOR ANY PURPOSES OR DISCLOSED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small>	



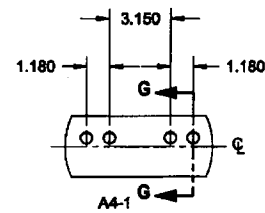
D2750-1 LH SKIDTUBE



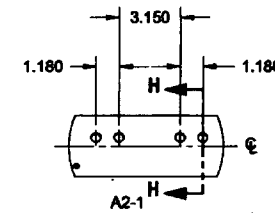
DETAIL A
SCALE 2X



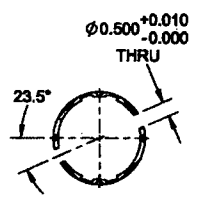
DETAIL B
SCALE 2X



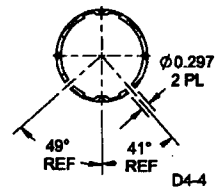
DETAIL C
SCALE 2X



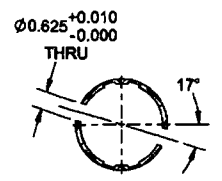
DETAIL D
SCALE 2X



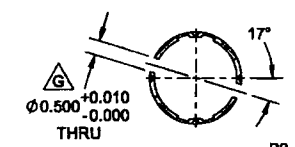
SECTION E-E
SCALE 3X, 2 PL



SECTION F-F
SCALE 3X, 17 PL



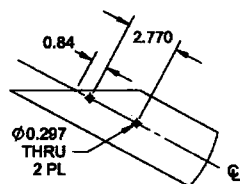
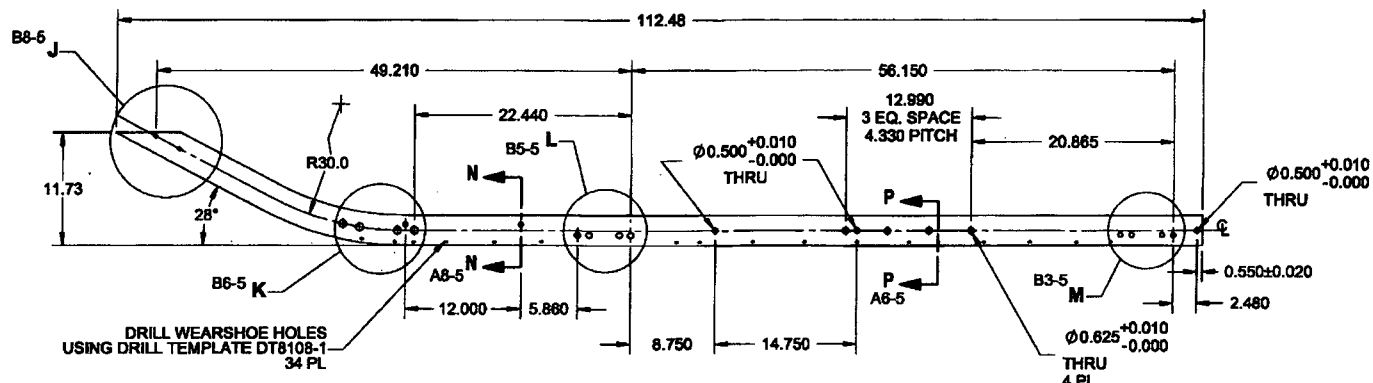
SECTION G-G
SCALE 3X, 4 PL



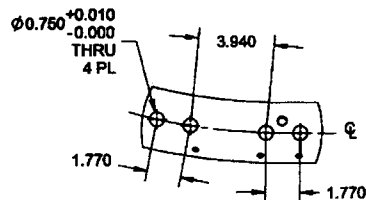
SECTION H-H
SCALE 3X, 4 PL

RELEASED
2013-08-13

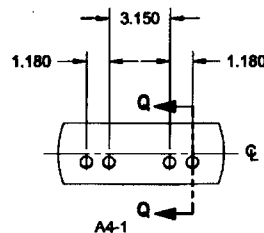
DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 4 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1999 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE UNDERSTANDING THAT IT NOT BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



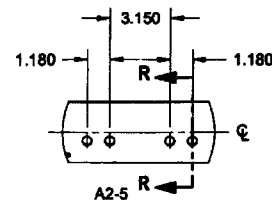
D8-5
SCALE 2X



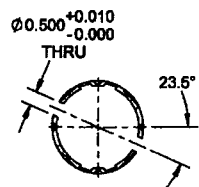
C7-5
SCALE 2X



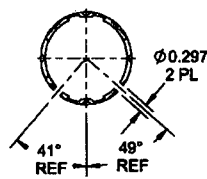
D6-5
SCALE 2X



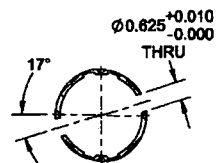
C3-5
SCALE 2X



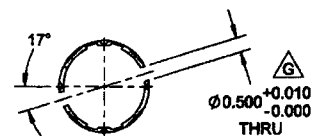
C6-5



C4-5



B5-5

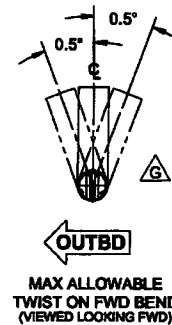
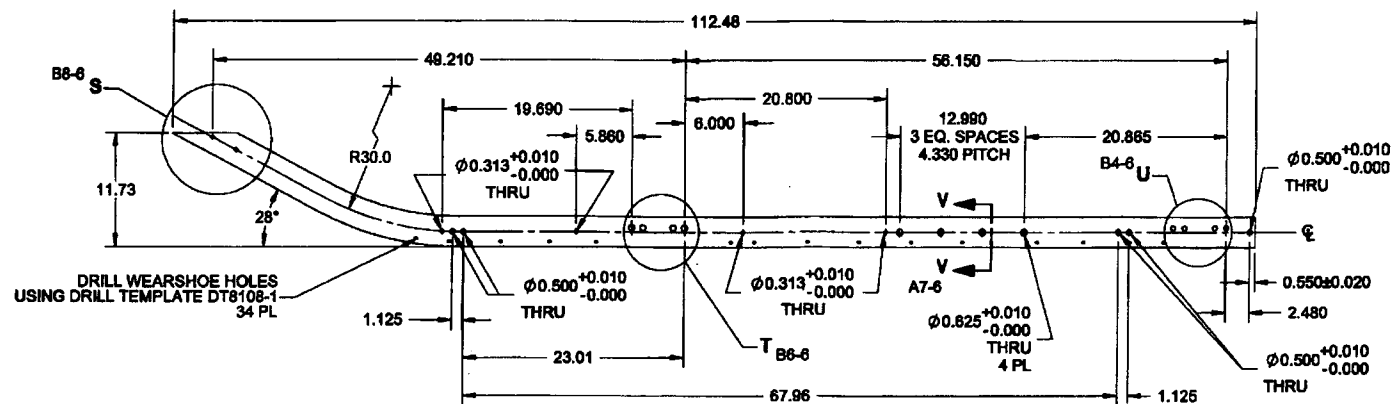


B3-5
SCALE 3X, 4 PL

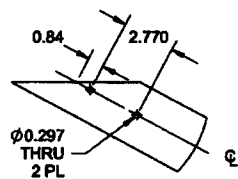
RELEASED
2013-08-13

DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 5 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1988 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS RELEASED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

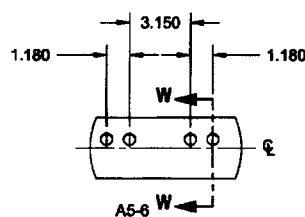
8 7 6 5 4 3 2 1



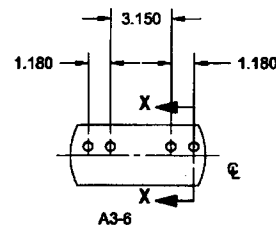
D2750-3 LH SKIDTUBE



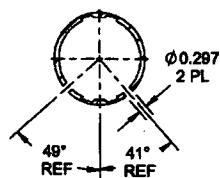
DETAIL S
SCALE 2X
D8-6



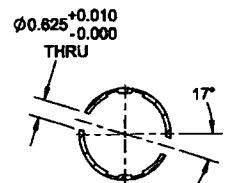
DETAIL T
SCALE 2X
C5-6
A5-6 W



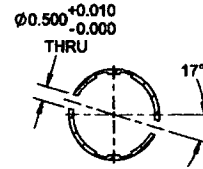
DETAIL U
SCALE 2X
D3-6
A3-6 X



SECTION V-V
SCALE 3X, 17 PL
C4-6



SECTION W-W
SCALE 3X, 4 PL
B6-6

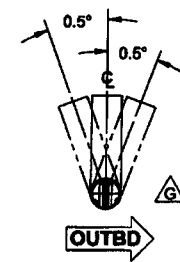
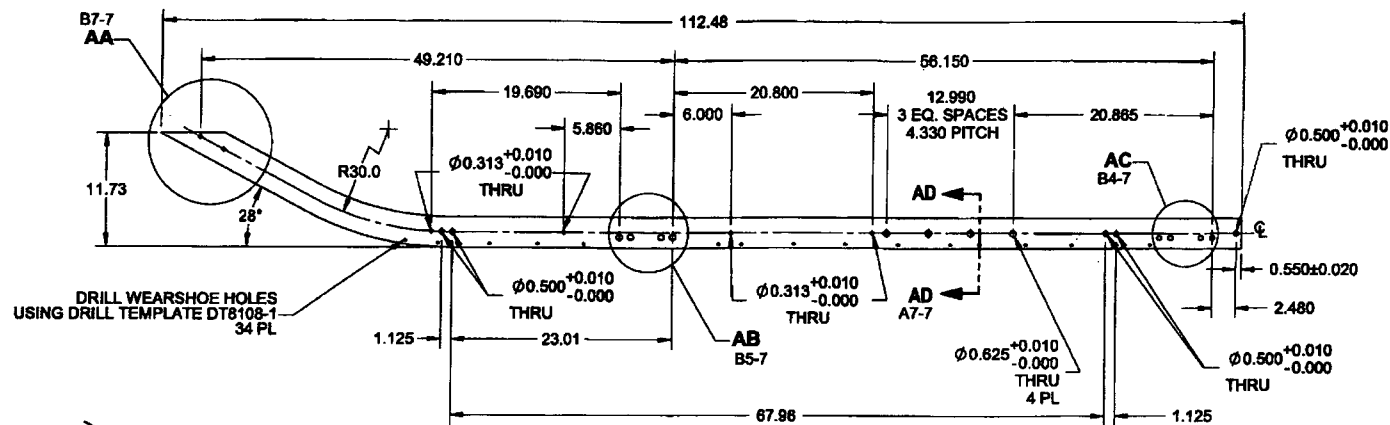


SECTION X-X
SCALE 3X, 4 PL
B4-6

RELEASED
2013-08-13
mp

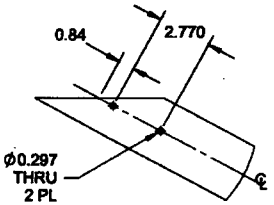
DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 8 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	<small>COPYRIGHT © 1988 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS UNCLASSIFIED AND IS RELEASED ON THE OPEN SOURCE CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT PERMISSION FROM DART AEROSPACE USA, INC.</small>	

8 7 6 5 4 3 2 1

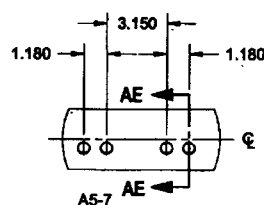


MAX ALLOWABLE
TWIST ON FWD BEND
(VIEWED LOOKING FWD)

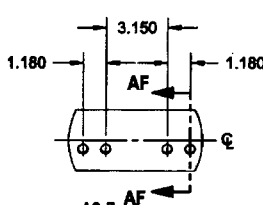
D2750-4 RH SKIDTUBE



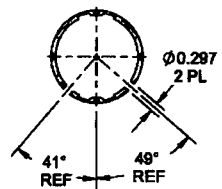
DETAIL AA
SCALE 2X



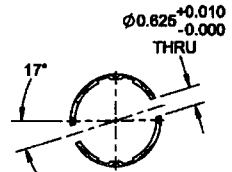
DETAIL AB
SCALE 2X



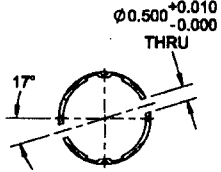
DETAIL AC
SCALE 2X



SECTION AD-AD
SCALE 3X, 17 PL



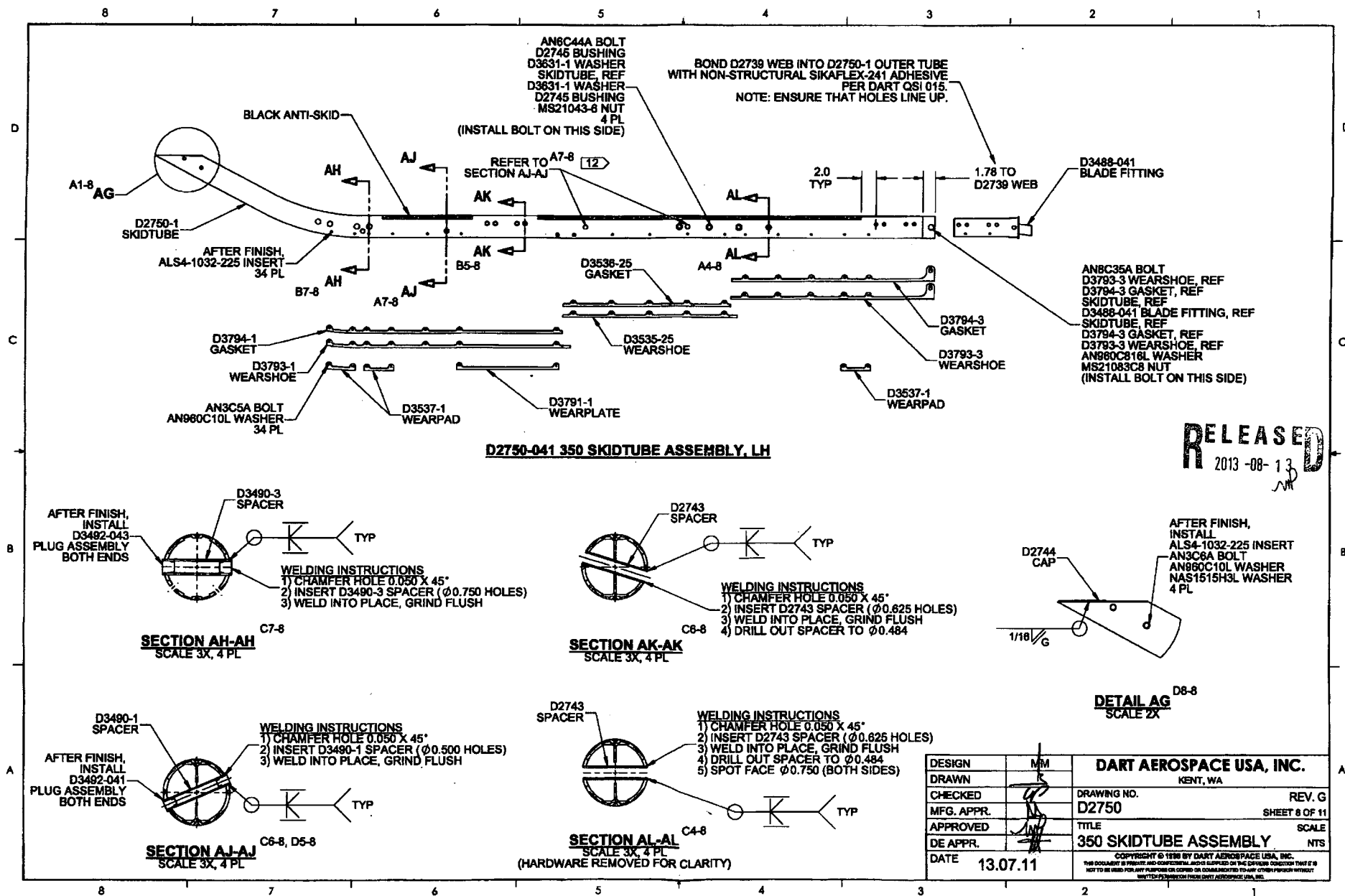
SECTION AE-AE
SCALE 3X, 4 PL



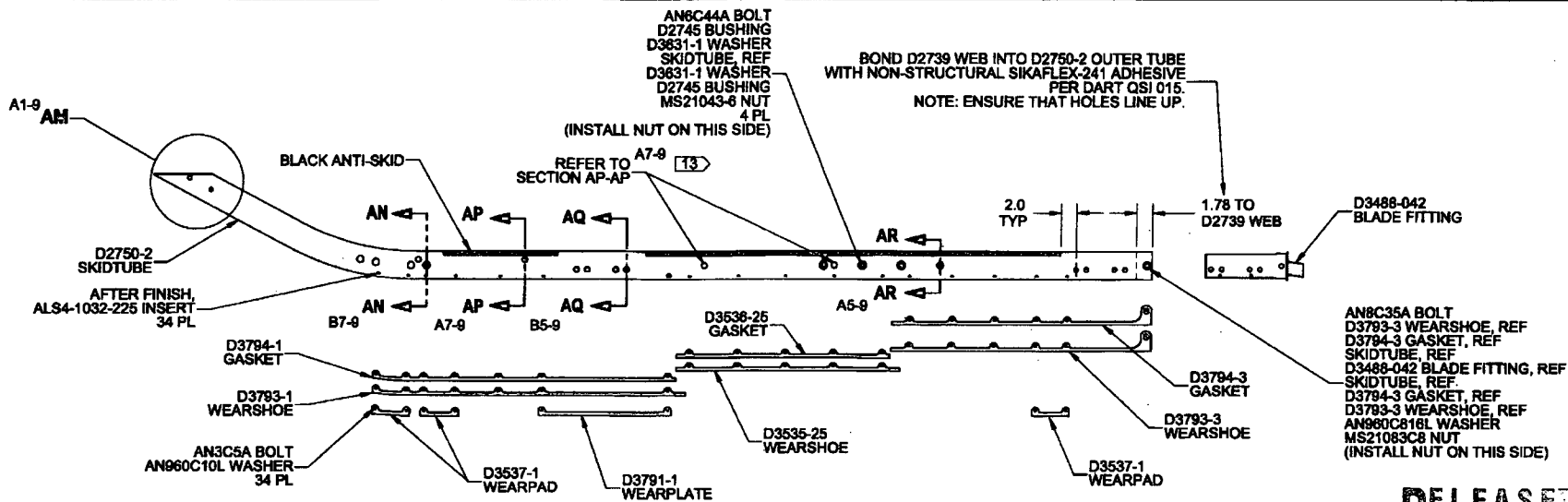
SECTION AF-AF
SCALE 3X, 4 PL

RELEASED
2013-08-13

DESIGN	MM	DART AEROSPACE USA, INC.	
DRAWN		KENT, WA	
CHECKED		DRAWING NO.	REV. G
MFG. APPR.		D2750	SHEET 7 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 1988 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	

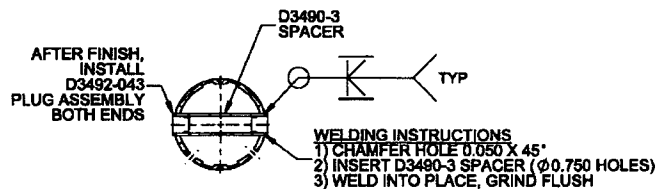


8 7 6 5 4 3 2 1

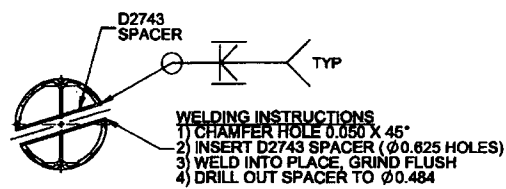


D2750-042 350 SKIDTUBE ASSEMBLY, RH

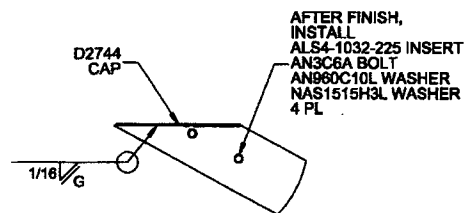
RELEASED
2013-08-13



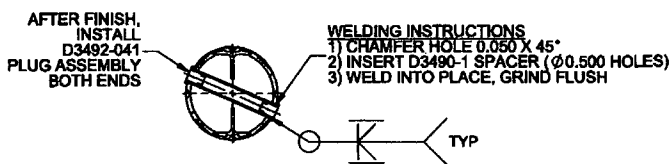
SECTION AN-AN
SCALE 3X, 4 PL



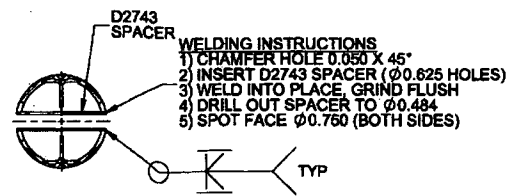
SECTION AQ-AQ
SCALE 3X, 4 PL



DETAIL AM
SCALE 2X



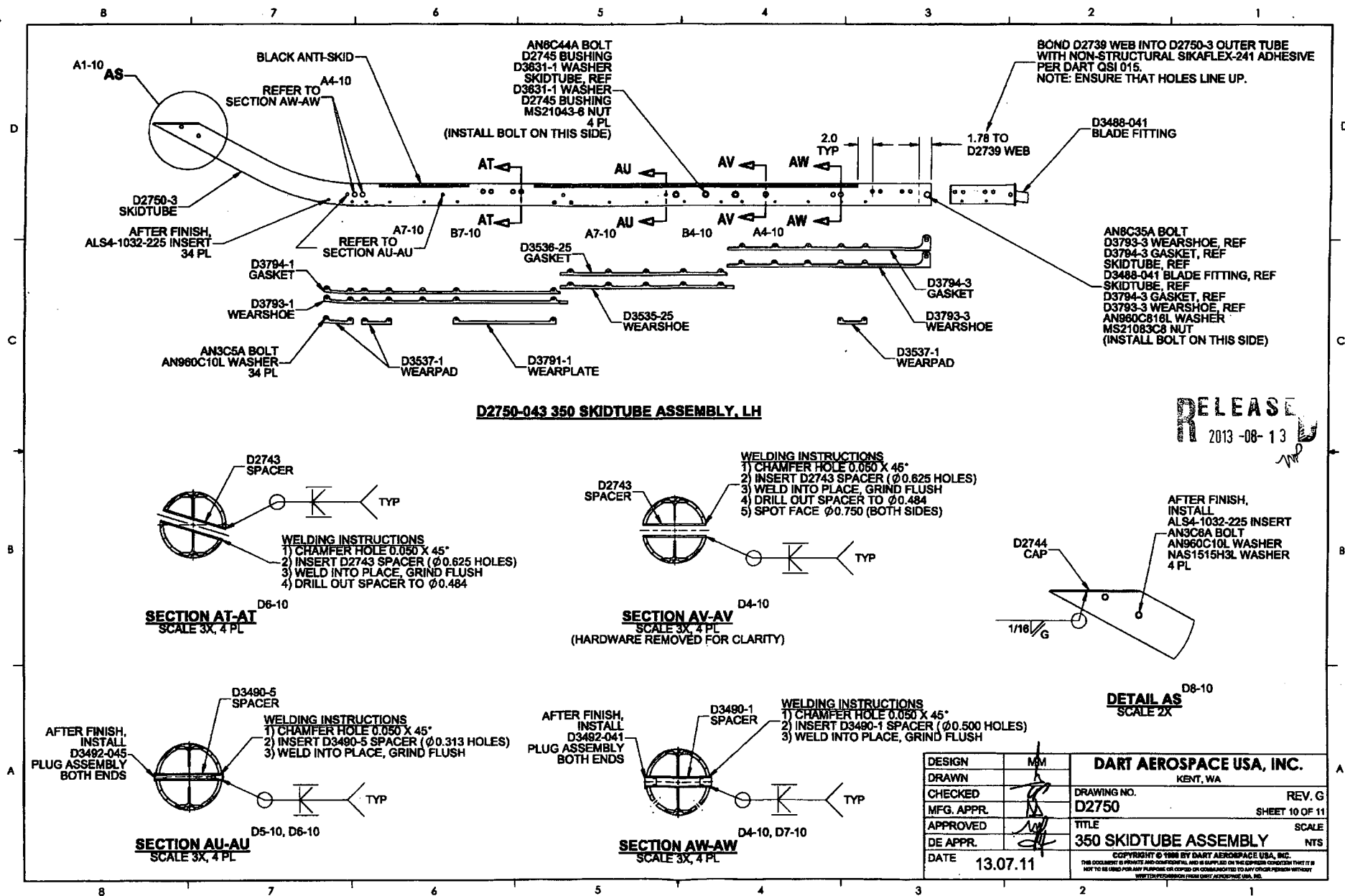
SECTION AP-AP
SCALE 3X, 4 PL



SECTION AR-AR
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)

DESIGN	NM	DART AEROSPACE USA, INC.
DRAWN		KENT, WA
CHECKED		DRAWING NO. D2750
MFG. APPR.		REV. G
APPROVED		SHEET 9 OF 11
DE APPR.		TITLE 350 SKIDTUBE ASSEMBLY
DATE	13.07.11	SCALE NTS

COPYRIGHT © 1986 BY DART AEROSPACE USA, INC.
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS RELEASED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.



No. 337

**AWS D17.1/D17.1M:2010
SKIDTUBE WELDING TEST RECORD**

Name: Barclay Elliott
Job #: B109371
Part #: D350-b36-012
Description: 350 skid tube
Welding Process: TIG [☒] MIG [☐
Base Material: Aluminium
Current: AC [☒] DC [☐

TEST REQUIREMENTS AND RESULTS

Visual:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Penetration:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Fusion:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Cracks:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Overlap (cold lap)	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Undercut:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Pin holes:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Porosity (surface):	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Coloration:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>
Burn through:	pass [<input checked="" type="checkbox"/>] fail [<input type="checkbox"/>

Qualifier: DAS
9
S-88 Date of Test Coupon: 13-12-03
Welder: Barclay Elliott Date of Test Coupon: 13-12-03

The above named individual is qualified to weld in accordance with AWS D17.1/D17.1M:2010.